

REMARKS

A Petition to Revive is being filed concurrently herewith. This amendment is fully responsive to the Office Action of August 8, 2007. Reconsideration and allowance of claims 1-18 are requested.

The Office Action

Claims 1, 3, 8, and 9 stand rejected under 35 U.S.C. § 102 as being anticipated by Suzuki.

Claims 2, 7, 10, and 11 stand rejected under 35 U.S.C. § 103 as being unpatentable over Suzuki.

Claims 4-6 stand rejected under 35 U.S.C. § 112, second paragraph, but do not stand rejected on prior art.

35 U.S.C. § 112

Claims 4-6 and other of the original claims have been amended to cure antecedent basis issues noted by the Examiner as well as potential issues to which the Examiner did not object.

With these amendments, it is submitted that all claims now comply fully with the requirements of 35 U.S.C. § 112.

**The Claims Are Not Anticipated By And
Are Patentable Over Suzuki**

In Suzuki, an X-ray tube 60 and its outlet device 74, such as a collimator for controlling the shape of the generated X-ray beam, are rotatably mounted to a holder member 64 which is attached to the extendable arm 42. The holder element 64 which rotatably supports X-ray tube 60 is not described in detail. However, due to the great weight of the X-ray tube assembly 60, it is likely that that structure is quite substantial, possibly extending to the opposite side of the X-ray tube 60. It is clear, that the X-ray tube 60 is supported directly in the holder mechanism 64. The vertically elongated holder mechanism 64 is non-rotatably supported on the extendable arm 42. Analogously, the holder portion 62 which is non-rotatably connected to the extendable arm 40 rotatably supports the X-ray detector, particularly, the image intensifier 58 in which optics and a phosphor element convert the received

X-rays into an illumination pattern. Optics 69 distribute the illuminated pattern to a television camera 68 and a cine recording camera 66 which are supported on the X-ray intensifier 58. Again, due to the weight and size of the X-ray detector system, the vertically elongated holder member 62 is of substantial construction and may extend around to the other side of the image intensifier, e.g., in a U-shape, for greater stability.

Claim 1 calls for a transverse arm. The holder elements 62, 64 of Suzuki are not transverse arms.

Further, claim 1 calls for a first end of the transverse arm to be rotatably mounted to the length-adjustable arm and for an equipment carrier to be rotatably mounted to a second end of the transverse arm. Suzuki does not have a transverse arm that is rotatably connected to a length-adjustable arm. Rather, in Suzuki, the X-ray tube and the X-ray intensifiers are rotatably connected to the extensible arm structures.

Further, Suzuki has no equipment carrier in addition to a transverse arm which equipment carrier supports the X-ray tube or X-ray detector. Rather, in Suzuki, the X-ray tube or detector is rotatably supported in the holder members 62, 64 of the respective vertically depending arm. There is no intermediate transverse arm and no intermediate equipment carrier.

Further, there is no transverse arm which is rotatably connected at one end to the vertically depending arm and rotatably connected at a second end to an equipment carrier. Rather, as described in Suzuki, there is only a single rotatable connection and that single rotatable connection is directly between either the X-ray tube or the X-ray detector and its associated vertically depending arm. Accordingly, it is submitted that claim 1 and claims 2-6 and 12 and 13 dependent therefrom are not anticipated by Suzuki.

Dependent claim 2 further adds a third axis of rotation. Because Suzuki only has a single axis of rotation for each arm assembly, it is submitted that claim 2 distinguishes yet more clearly over Suzuki.

Claim 4 has been amended to correct the mislabeling of the axis identified both in claim 4 and parent claim 1 as axis (R_{IS} , R_{ID}). No references having been cited against claim 4, it is submitted that claim 4 is not anticipated by Suzuki.

Claim 5 has been amended to change "the extension axis" to "an axis" to resolve the 35 U.S.C. § 112 rejection. There being no rejection on art against claim 5, it is understood that claim 5 is now allowable.

Claim 6 has merely been amended to delete the reference numerals, the "characterized" language, and otherwise place the claim in more conventional US format without changing its scope. All limitations in claim 6 already find full antecedent basis in claim 1. Because claim 6 has not been rejected on art, it is understood that claim 6 is now allowable.

Claim 7 has been placed in independent form. Claim 7 calls for a transverse arm which is connected to the length-adjustable arm for rotation about a first vertical axis and for the X-ray tube or X-ray detector to be connected via the equipment carrier with the transverse arm in such a manner that it is rotatable about a horizontal axis. Suzuki fails to disclose two rotational axes between either the X-ray tube or the X-ray detector and the extensible arm, much less a vertical rotation axis and a horizontal rotation axis.

This additional degree of rotational freedom enables the presently claimed system to undergo movements and perform examinations which Suzuki neither contemplates nor enables. Accordingly, it is submitted that claim 7 and claim 14 dependent therefrom distinguish patentably and unobviously over Suzuki.

Claim 8 calls for an X-ray installation which includes a transverse arm that is mounted to an end of the longitudinally adjustable arm to be rotatable about a first axis of rotation. As set forth on page 2, lines 13-18 of the present application, this transverse arm allows the mounted equipment to be changed on the spot and the remaining degrees of freedom. By virtue of the transverse arm, the final position of the mounted equipment is more adjustable and greater latitude is provided to avoid interference with other associated equipment in the room.

Because Suzuki neither has such a transverse arm nor achieves the advantages thereof, it is submitted that claim 8 and claims 9-11 and 15-18 dependent therefrom are not anticipated by Suzuki.

Dependent claim 9 calls for two transverse arms each of which has rotatable connections at either end. In Suzuki, there is only a single rotational movement or axis between the downward dependent arms and the associated X-ray

tube or detector. Accordingly, it is submitted that claim 9 and claims 11, 15, and 16 dependent therefrom are not anticipated by Suzuki.

Claim 11 calls for the control unit to make allowances for collision avoidance. Suzuki makes no suggestion of performing collision avoidance in the control unit. Rather, Suzuki prevents collisions by mechanical settings and connections. Specifically, the connecting arm 30 holds mounting bases 22 and 24 far enough apart that no collision avoidance is needed. Even when the connecting arm 30 is detached at electromagnet 34, the physical structures of the bases 22, 24 are such that the two bases will mechanically abut before the X-ray tube and detector assemblies can interact or collide. Because Suzuki specifically teaches that any collision avoidance between the X-ray tube and X-ray detector should be mechanical and because Suzuki provides such mechanical collision avoidance, it is submitted that claim 11 distinguishes patentably and unobviously over the references of record.

Claims 17 and 18 call for three axes of rotation between the extendable arm and the X-ray tube or detector. Because Suzuki only has a single axis of rotation, it is submitted that these claims distinguish yet more forcefully over Suzuki.

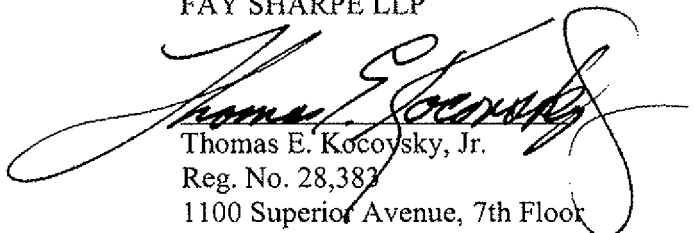
CONCLUSION

For the reasons set forth above, it is submitted that claims 1-18 are not anticipated by and distinguish patentably over Suzuki and comply with 35 U.S.C. § 112. An early allowance of all claims is requested.

In the event the Examiner considers personal contact advantageous to the disposition of this case, she is requested to telephone Thomas Kocovsky at (216) 861-5582.

Respectfully submitted,

FAY SHARPE LLP



Thomas E. Kocovsky, Jr.
Reg. No. 28,382
1100 Superior Avenue, 7th Floor
Cleveland, OH 44114-2579
(216) 861-5582